

Title (en)  
DRUG DELIVERY SYSTEMS AND RELATED METHODS

Title (de)  
ARZNEIMITTELABGABESYSTEME UND ZUGEHÖRIGE VERFAHREN

Title (fr)  
SYSTÈMES D'ADMINISTRATION DE MÉDICAMENTS ET PROCÉDÉS ASSOCIÉS

Publication  
**EP 3694590 A1 20200819 (EN)**

Application  
**EP 18865938 A 20181005**

Priority

- US 201762569901 P 20171009
- US 201862639911 P 20180307
- US 2018054721 W 20181005

Abstract (en)

[origin: WO2019074799A1] Systems and methods for isolating and/or desiccating a portion of a drug delivery tract of a drug delivery apparatus to reduce water vapor content therein are provided. For example, there is provided a metered dose inhaler for delivering aerosolized medicament or other matter to a user. The aerosolized medicament or other matter may be discharged from a discharge passageway within the inhaler into an inhalation passageway for inhalation by a user, and the inhaler may comprise a seal member operative to selectively isolate the discharge passageway from the inhalation passageway and external environment during inactivity. The inhaler may further comprise a desiccant material arranged to withdraw moisture from the isolated discharge passageway. In other instances, desiccant material may be arranged to withdraw moisture from the discharge passageway of the inhaler without isolating the discharge passage during inactivity.

IPC 8 full level  
**A61M 15/00** (2006.01); **A61K 9/00** (2006.01); **A61K 9/12** (2006.01); **A61M 11/00** (2006.01); **A61M 11/06** (2006.01); **A61M 11/08** (2006.01)

CPC (source: CN EP IL KR US)  
**A61K 9/0075** (2013.01 - CN IL); **A61K 9/12** (2013.01 - IL); **A61M 11/00** (2013.01 - CN IL); **A61M 11/06** (2013.01 - IL KR); **A61M 11/08** (2013.01 - IL KR); **A61M 15/0025** (2013.01 - CN IL); **A61M 15/0026** (2013.01 - CN EP IL KR US); **A61M 15/0068** (2014.02 - CN IL KR); **A61M 15/0086** (2013.01 - CN IL); **A61M 15/009** (2013.01 - EP IL KR US); **A61M 15/0091** (2013.01 - CN IL KR); **B05B 11/1053** (2023.01 - IL); **B65D 83/386** (2013.01 - EP IL); **A61K 9/12** (2013.01 - CN); **A61M 15/0068** (2014.02 - EP US); **A61M 2202/062** (2013.01 - CN EP IL KR US); **B05B 11/1053** (2023.01 - EP)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2019074799 A1 20190418**; AU 2018347970 A1 20200423; AU 2018347970 B2 20240530; BR 112020006696 A2 20201006; CA 3078209 A1 20190418; CN 111432865 A 20200717; CN 111432865 B 20220719; CN 115445033 A 20221209; EP 3694590 A1 20200819; EP 3694590 A4 20210818; EP 3694590 B1 20220504; EP 4091652 A1 20221123; EP 4091652 B1 20231129; ES 2921305 T3 20220823; ES 2970740 T3 20240530; IL 273713 A 20200531; IL 273713 B1 20230601; IL 273713 B2 20231001; IL 302619 A 20230701; IL 302619 B1 20240201; IL 302619 B2 20240601; JP 2020536622 A 20201217; JP 2022122887 A 20220823; JP 7076538 B2 20220527; JP 7479420 B2 20240508; KR 102428545 B1 20220804; KR 102683072 B1 20240708; KR 20200070284 A 20200617; KR 20220110868 A 20220809; SG 11202003062Q A 20200429; US 11331442 B2 20220517; US 11833292 B2 20231205; US 2020353185 A1 20201112; US 2022016366 A1 20220120; US 2024050670 A1 20240215

DOCDB simple family (application)  
**US 2018054721 W 20181005**; AU 2018347970 A 20181005; BR 112020006696 A 20181005; CA 3078209 A 20181005; CN 201880079337 A 20181005; CN 202210749962 A 20181005; EP 18865938 A 20181005; EP 22170388 A 20181005; ES 18865938 T 20181005; ES 22170388 T 20181005; IL 27371320 A 20200331; IL 30261923 A 20230502; JP 2020519370 A 20181005; JP 2022080964 A 20220517; KR 20207012633 A 20181005; KR 20227026248 A 20181005; SG 11202003062Q A 20181005; US 201816754585 A 20181005; US 202117487997 A 20210928; US 202318384012 A 20231026